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(74) Common Representative: **KONINKLIJKE PHILIPS ELECTRONICS, N.V.**; c/o LUNDIN, Thomas, M. 595 Miner Road, Cleveland, OH 44143 (US).

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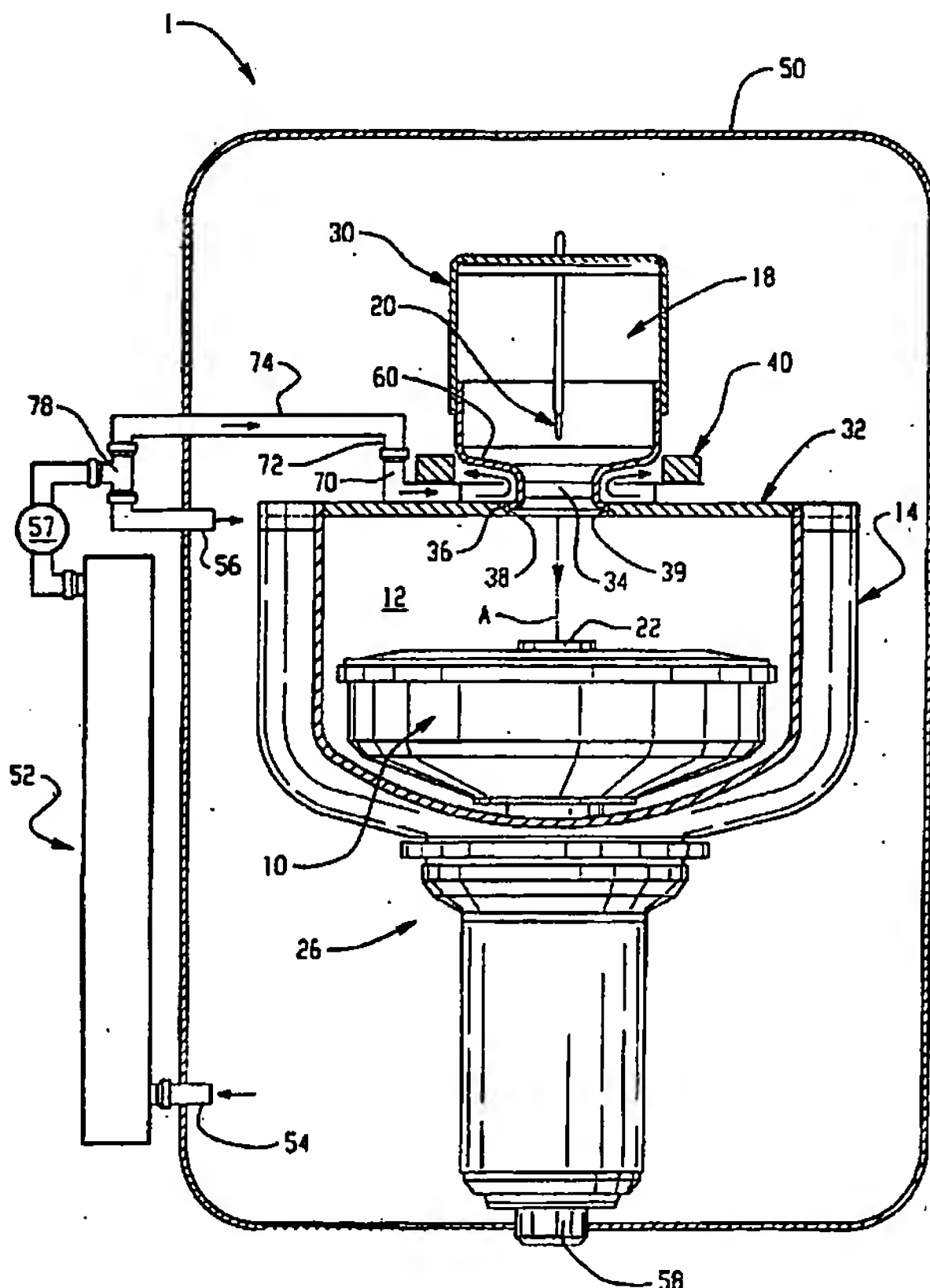
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(75) Inventors/Applicants (for US only): **LU, Qing, K.** [US/US]; 595 Miner Road, Cleveland, OH 44143 (US).

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(54) Title: X-RAY TUBE COOLING COLLAR



(57) Abstract: An x-ray tube assembly (1) includes a cathode housing (30) which has a neck connected to a frame (14) of the x-ray tube assembly. An anode (10) is positioned within an evacuated chamber defined by the frame. To reduce overheating of the neck by backscattered electrons, a cooling collar (70, 70', 70'') is positioned around the neck of the cathode housing. Cooling fluid enters the collar through a fluid inlet tube (72, 72', 72''). A cover member (110, 110', 110'') of the collar includes a wall (118, 118', 118'') which defines an aperture (126, 126', 126'') sized for receiving the neck of the cathode housing. Cooling fluid flows around an interior annular flow path (152, 152') defined within the cover member and leaves the cover member through the aperture or associated notches. In this way, stagnation of the flow is minimized.

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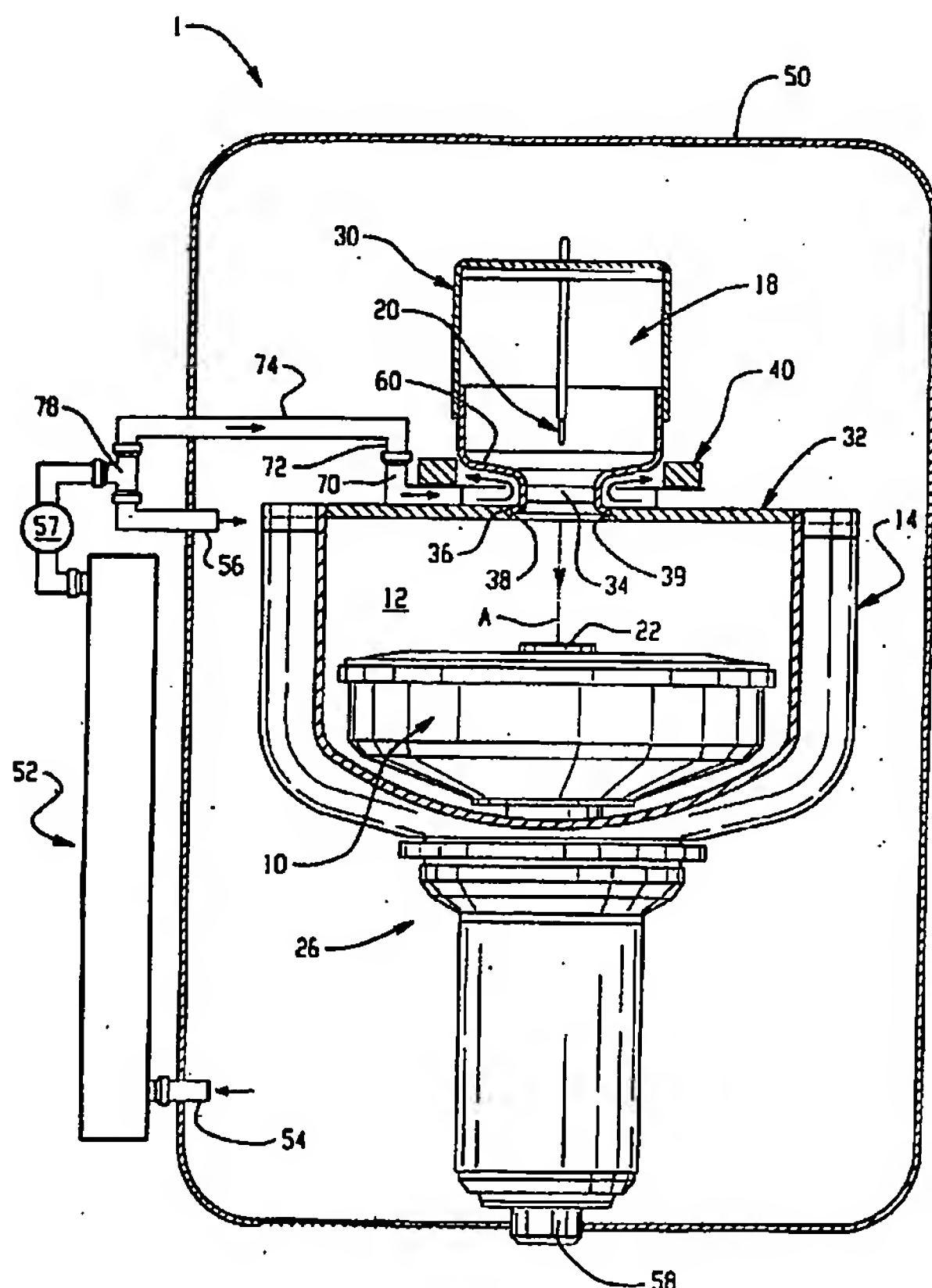
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